

Māori Health Review

Making Education Easy

Issue 32 – 2011

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Tēnā koutou katoa

Tēnā koutou, tēnā koutou, tēnā tatou katoa.
Naumai, haere mai ki tenei Tirohanga hou Hauora Māori.

Greetings

Firstly, many thanks to Kahu for her mahi in the last issue. We've had fantastic feedback from readers. Nō reira, nga mihi nui, mihi aroha ki a koe Kahu.
We will continue to invite guest editors to provide papers/comments in special topics; please let us know if there is a particular area you'd like to see covered.

In the meantime, noho ora mai,
na

Matire

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Ethnic differences in access to prescription medication because of cost in New Zealand

Authors: Jatrana S et al

Summary: These researchers used data from SoFIE-Health (wave 3), an add-on to the Statistics New Zealand-led longitudinal Survey of Family, Income and Employment (SoFIE) (n=18,320), to examine ethnic differences in financial barriers to access to prescription medication in New Zealand. Māori and Pacific people were more likely than NZ Europeans to defer buying a prescription at least once during the past 12 months because they could not afford the cost of the prescription (OR 2.98 vs OR 3.52). After adjusting for potential confounders the ORs were attenuated to 1.31 for Māori people and to 2.17 for Pacific people. Those who deferred buying medications because of cost were also more likely to report poor health status, high/very high psychological stress and the presence of two or more comorbid conditions.

Comment: Given these results, we must continue to ensure access to quality health care including access to medication. Cost is a significant barrier, particularly for those on multiple meds. Other ways to reduce cost may include support for non-pharmacological activities (nutrition, activity etc), health literacy interventions (to ensure correct doses and strategies to manage side effects) and 'polypills' (two or more drugs in the one pill).

Reference: *J Epidemiol Community Health.* 2011;65(5):454-60.

<http://jech.bmj.com/content/65/5/454.abstract>

**Independent commentary by Dr Matire Harwood,
Medical Research Institute of New Zealand.**

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Issue 1 – 2011

In this issue:

- *Combined internet and telephone treatment for smoking cessation*
- *Adapting NRT daily doses according to saliva cotinine*
- *Effects of smoking cessation on lipoproteins*
- *Nicotine receptor partial agonists for smoking cessation*
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- *Effects of nicotine preloading on abstinence*
- *Extended-duration transdermal nicotine therapy*
- *Smoking cessation*

Welcome to the first edition of Smoking Cessation Research Review.

We hope that you find the review informative and enjoyable as a digest of the most recent and relevant papers in the field of smoking cessation.

The Review provides website links to the abstract or fully published papers so you can make your own judgements.

The creation of this publication would not have been possible without support from our sponsors, we thank them for their support. If you have colleagues or friends within New Zealand who would like to receive our publication, send us their contact email and we will include them in the next issue.

We hope you find this edition stimulating reading, and we welcome any comments or feedback.

Kind regards,
Dr Chris Toffel
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A randomized trial of internet and telephone treatment for smoking cessation
Authors: Coombs et al
Summary: Smoking cessation interventions are increasingly being delivered via electronic media. This study investigated the efficacy of an interactive website (www.smokingcessation.co.nz) that provides advice and assistance in quitting smoking including setting a quit date, identifying triggers for relapse and providing emotional support to quit or, as a second option, this interactive support via a telephone.

Rheumatic fever recurrence prevention: A nurse-led programme of 28-day penicillin in an area of high endemicity

Authors: Spinetto H et al

Summary: To evaluate the safety and effectiveness of longer-acting penicillin to prevent recurrences of acute rheumatic fever (ARF), these researchers assessed historical data from the regional RF register for Auckland, New Zealand, in a 5–14-year-old population with ARF rates of ~40–80/100,000. Every 28 days, community nurses delivered free benzathine penicillin to consented patients; discharge was after 10 years of treatment or age 21 years, whichever was longer. First-episode and recurrent ARF cases were classified as definite (Jones criteria 1992) or probable (Jones criteria 1956). Of the 360 cases meeting the case definitions, 20 recurrences occurred in 19 people (median age 21 years). Age at first episode ranged from 2–52 years (median 21.3). After penicillin was discontinued, ARF recurred at 0–21 years; 72% of recurrent cases occurred within 5 years, and 12% between 5 years and 10 years. The 4-weekly long-acting penicillin failure rate (n=1) was 0.07/100 patient years. The programme failure rate (Auckland residents) was 1.4/100 patient years (n=20). Fifty-five percent of recurrences were attributed to patient non-adherence. Two recurrences after discharge from prophylaxis as per the New Zealand guidelines occurred after 3 years and 13 years.

Comment: This paper provides a great example of how to test a simple idea (provide longer-acting penicillin every 28 days rather than 21 days) in the community. Importantly, given the significant rates and ethnic disparities, it also serves as a reminder of the need for vigilance in managing rheumatic fever.

Reference: *J Paediatr Child Health*. 2011;47(4):228-34.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1440-1754.2010.01942.x/abstract>

Socioeconomic inequalities in the use of radiotherapy for rectal cancer: A nationwide study

Authors: Olsson LI et al

Summary: The influence of socioeconomic status on the use of preoperative radiotherapy in rectal cancer was evaluated in this study, which linked individually attained data on civil status, education and income to the Swedish Rectal Cancer Registry 1995–2005 (n=16,713). Preoperative radiotherapy was given to 46% of the patients; the crude rate varied with age, gender, civil status, education and income as well as with sublocalisation, stage, type of hospital and health care region. Multivariate analysis revealed inequalities in use of preoperative radiotherapy by civil status: all civil status groups were less likely than married patients to have preoperative radiotherapy; the OR for unmarried patients was 0.67. The use of PRT was also linked to income; the OR for patients with income Q1 versus Q4 was 0.76. The inequalities by civil status and income remained unchanged in groups with a relatively stronger indication for adjuvant radiotherapy, i.e. younger patients and in low rectal cancer. Use of preoperative radiotherapy was not affected by education level: there was no difference in uptake between patients with secondary and university education and those with compulsory school (OR 1.04 and 0.92).

Comment: In this paper from Sweden we find further evidence for the role of non-clinical factors in cancer treatment rates. The role of civil status is an interesting one and poses questions about family/partner advocacy in tertiary care settings.

Reference: *Eur J Cancer*. 2011;47(3):347-53.

[http://www.ejancer.info/article/S0959-8049\(10\)00246-7/abstract](http://www.ejancer.info/article/S0959-8049(10)00246-7/abstract)

A comparison of Māori and non-Māori experiences of general practice

Authors: Jansen P et al

Summary: This paper evaluated differences between Māori and non-Māori experiences of care in the GP setting, using data from a 2005 study that administered a semi-structured personal questionnaire in telephone surveys of random samples of 651 Māori and 400 non-Māori consumers. Compared with non-Māori, Māori respondents on average were younger and less advantaged in their socioeconomic and health status. More Māori than non-Māori reported needing their last GP visit urgently. Most respondents reported seeing a GP when they wanted, but non-Māori were more likely than Māori to have this preference met. Māori were less likely to report being offered a choice of appointment times or to be seen on time.

Comment: Reaffirms the need for Māori participation in the development of 'primary health care' that aims to be 'better, sooner and more convenient'. Perhaps primary care organisations could utilise the survey questions to monitor the effectiveness of their 'process' and its relationship to outcomes.

Reference: *N Z Med J*. 2011;124(1330):24-9.

<http://www.nzma.org.nz/journal/abstract.php?id=4555>

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Culturally appropriate storytelling to improve blood pressure: a randomized trial

Authors: Houston TK et al

Summary: An interactive storytelling intervention involving DVDs was tested as a tool for health promotion among 230 African Americans with hypertension attending an inner-city safety-net clinic in the southern United States. Most patients (71.4%) were women, and the mean age was 53.7 years. The study intervention consisted of 3 DVDs that contained patient stories. Storytellers were drawn from the patient population. Patients assigned to the intervention (comparison group) received an attention control DVD; separate random assignments were performed for patients with controlled or uncontrolled hypertension. Among patients with baseline uncontrolled hypertension, significant reductions from baseline were seen at 3 months for both systolic (11.21 mm Hg; p=0.012) and diastolic (6.43 mm Hg; p=0.012) blood pressure in the intervention group. Patients with baseline controlled hypertension did not significantly differ over time between study groups. Blood pressure subsequently increased for both groups, but between-group differences remained relatively constant.

Comment: Many of us use role models, or story telling in health promotion activities. Great to see published evidence of how one clinic has made it work for them.

Reference: *Ann Intern Med.* 2011;154(2):77-84.

<http://www.annals.org/content/154/2/77.abstract>

Toward a fourth generation of disparities research to achieve health equity

Authors: Thomas SB et al

Summary: These US-based researchers discuss their proposed new generation of health disparities research that is grounded in public health critical race praxis and employs comprehensive interventions to address race, racism, and structural inequalities and advancing evaluation methods, as a means of achieving health equity. The researchers examined a conceptual framework of three generations of health disparities research to understand data trends, factors driving disparities, and solutions for closing the gap. Their research model addresses the researcher's own biases as part of the research process.

Comment: An interesting paper with useful references for people interested in looking at or implementing interventions to address racism at the 'structural or systematic' level.

Reference: *Annu Rev Public Health.* 2011;32:399-416.

<http://www.annualreviews.org/doi/abs/10.1146/annurev-publhealth-031210-101136>

Potential primary health care savings for chronic disease care associated with Australian Aboriginal involvement in land management

Authors: Campbell D et al

Summary: This Australian study estimated possible savings in primary care costs for hypertension, renal disease and diabetes associated with Aboriginal involvement in land management and Northern Territory Government-defined chronic disease outcomes. The study enrolled 298 Aboriginal adults aged 15–54 from a remote Aboriginal community. Land management participants were significantly less likely to have diabetes, renal disease or hypertension. Expected net annual savings for the community from involvement in land management amounted to \$AU268,000, equating to a net present value of primary health care savings in chronic disease care for the sampled community over 25 years of \$AU4.08 million. The researchers note that these estimated savings are in addition to the market and non-market economic benefits of a healthier population and environmental benefits.

Comment: I found this paper interesting – not only for the documenting of the benefits in health outcomes for indigenous Australians who were 'involved' in land management (and what does 'involved' mean?) but that the authors have chosen to highlight the cost savings. I think we will increasingly be asked to consider or describe 'economic outcomes' in the indigenous health space.

Reference: *Health Policy.* 2011;99(1):83-9.

[http://www.healthpolicyjrn.com/article/S0168-8510\(10\)00203-4/abstract](http://www.healthpolicyjrn.com/article/S0168-8510(10)00203-4/abstract)

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Reducing ethnic disparities in the quality of trauma care: an important research gap

Authors: Hosking JE et al

Summary: When they searched for intervention studies designed to reduce ethnic disparities in trauma care, these researchers found no evaluations of such interventions in a systematic literature review. However, when they scanned the equivalent literature in other health care settings they discovered three strategies that could serve as promising interventions deserving further investigation in the trauma care setting: (1) improving cultural competency of service providers, (2) addressing the effects of health literacy on the quality of trauma care, and (3) quality improvement strategies that recognise equity as a key dimension of quality. The study authors suggest that a trauma coordinator role may help address some aspects relating to these themes. They add that reducing disparities is likely to require broader system-wide policies.

Comment: As the authors report, there are few studies that test interventions designed to reduce ethnic disparities in quality of health care. The three strategies discussed here are extremely useful as first steps in designing such interventions.

Reference: *Ann Surg.* 2011;253(2):233-7.

<http://tinyurl.com/5rs5atu>

Changing response rates from Māori and non-Māori in national sleep health surveys

Authors: Fink JW et al

Summary: This investigation sought to determine the reasons underlying the declining response rates in New Zealand sleep health surveys, using data from four population surveys undertaken from 1999–2008. The surveys used the electoral roll as a sampling frame and sought to recruit equal numbers of Māori and non-Māori, consistent with the Kaupapa Māori principle of equal explanatory power. The survey method also included extensive follow-up. Successive surveys revealed fewer respondents in all age groups. Response rates from Māori were lower in all surveys and the percentage decline was greater than for non-Māori. By 2008, the response rates from the initial mail-out in 1999 had decreased by 50% and the proportion of the sample classified as uncontactable had increased by 50%. Explanatory factors included decreased currency of electoral roll address information, declining use of listed landline telephone numbers, and possibly declining willingness to participate from increasing respondent burden. Contributory study design features included a possible impact from a shift in leadership by a Māori health research centre to Māori researchers in a non-Māori research centre, increasing complexity of questions and saliency of the research topic to potential participants.

Comment: Recruitment of Māori participants into research is crucial for monitoring and intervening in Māori health development. The important message here is that if your study is not achieving the numbers to have equal explanatory power, a review to identify and apply appropriate strategies is required.

Reference: *N Z Med J.* 2011;124(1328):52-63.

<http://www.nzma.org.nz/journal/abstract.php?id=4505>

Gene expression in the placenta: maternal stress and epigenetic responses

Authors: Gheorghe CP et al

Summary: These researchers discuss the evidence from preclinical and clinical studies of placental gene expression responses to maternal stress such as hypoxia, protein deficiency, and caloric excess. The paper discusses these gene expression changes within a framework of the biochemical pathways and molecular mechanisms, arguing that stresses to the maternal organism can result in alterations of great biological and epigenetic importance to the developing embryo and foetus.

Comment: I've included this paper in response to the recent media attention given to the studies linking maternal nutrition to long-term conditions in their children. Two important points made here regarding the place of epigenetics and Māori are: that a focus on maternal wellbeing (including things like reduced stress, good nutrition, adequate antenatal care) can have a significant impact on genetic expression and consequently whānau wellbeing; and that it is much more complex than just blaming "your mother's poor diet".

Reference: *Int J Dev Biol.* 2010;54(2-3):507-23.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2830734/>

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